

REMARKS

The application has been amended to place it in condition for allowance at the time of the next Official Action.

Claims 15, 16, 18 and 19 were previously pending in the application. Claim 15 is canceled; leaving claims 16, 18 and 19 for consideration.

Canceling claim 15 is believed to obviate the rejection of this claim under 35 USC §103(a) over USAMI (JP 202-303574) in view of MINAMI 4,874,808.

Claims 16, 18 and 19 were rejected under 35 USC §103(a) as being unpatentable over USAMI in view of MINAMI, and further in view of ARNONE 6,388,799. That rejection is respectfully traversed.

Claim 16 is amended and recites a plurality of apertures which pass a line beam coincided with an optical axis of the terahertz waves. Claim 16 further recites an optical component comprising a polymer of cycloolefin arranged on the optical axis, characterized by being constructed so that a visible light source is disposed and visible light from said visible light source is superimposed on the optical axis of the terahertz waves.

ARNONE is offered for this latter feature.

However, ARNONE does not disclose that which is recited.

First, the reference beam of ARNONE does not meet the recited visible light. The input beam shown in Figure 13 of ARNONE is a pulsed visible laser provided by a pulse laser source 537. The input beam is used as a reference beam 548 for detecting imaged radiation as explained in column 15, line 60 to column 16, line 34. The reference beam 548 is coincided with the imaged THz beam 539 only at a pin point on the detector crystal 573.

On the contrary, according to the present invention, the line beam of the terahertz wave is coincided with visible light so that the optical axis of the reflected visible light is superimposed on the optical axis of the terahertz waves as recited in claim 16. As recited in claim 19, the optical axis of the terahertz waves can be visually recognized in a simulated manner by the visible light.

Second, the terahertz beam of ARNONE does not meet the recited line beam. The imaged THz beam 539 of ARNONE is produced in the generator 531 and is radiated to wide directions.

On the contrary, the terahertz wave of the present application is a line beam defined by a plurality of apertures. See, for example, apertures 1, 2 and 3 of Figure 2.

Third, the disclosed hole of ARNONE prevents reflection of a line beam. One of the parabolic mirrors 545 of ARNONE has a hole for the reference beam 568. Such hole is explained in Figs. 26 and 27, and in column 25, lines 51-54 and column 26, lines 20-24.

If the imaged THz beam 539 were a line beam, the parabolic mirrors 545 could not reflect the line beam at the hole. Therefore even if the parabolic mirror 545 is replaced by a light semi-transmissive plate of cycloolefin, the references would not meet the present claims and an object underlying the present invention cannot be achieved.

Finally, ARNONE aligns a focus on the detector 13 after passing the sample 541 with the reference beam 548.

On the contrary, the present invention aligns a line beam before passing the object with a line visible light.

In view of the above, it is believed to be apparent that ARNONE does not overcome the shortcomings of MINAMI and USAMI. Therefore, the proposed combination of references does not meet the present claims.

Moreover, the proposed combination of references is improper, because the references teach away from their combination.

USAMI teaches away from the regulator of claim 19 and the apertures of claim 16 in favor of an alignment adjustment mechanism 26, 35. See also paragraph [0004], which teaches away from conventional pinholes/apertures.

MINAMI is only cited for the disclosure of cycloolefin components and does not overcome the shortcomings of USAMI and ARNONE set forth above.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

A handwritten signature in cursive script, reading "Liam McDowell".

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